

6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 54

[WC Docket No. 10-90, WT Docket No. 10-208; DA 18-186]

Procedures for the Mobility Fund Phase II Challenge Process

AGENCY: Federal Communications Commission.

ACTION: Final action; requirements and procedures.

SUMMARY: In this document, the Rural Broadband Auctions Task Force, with the Wireline Competition Bureau and the Wireless Telecommunications Bureau, adopt specific parameters and procedures to implement the Mobility Fund Phase II challenge process. This document describes the steps the Federal Communications Commission will use to establish a map of areas presumptively eligible for MF-II support from the newly collected, standardized 4G Long Term Evolution coverage data and proposes specific parameters for the data that challengers and respondents will submit as part of the challenge process, as well as a process for validating challenges.

DATES: The challenge window will open March 29, 2018, and will remain open until August 27, 2018.

ADDRESSES: Submit waivers by e-mail to mf2challengeprocess@fcc.gov or by hard copy to Margaret W. Wiener, Chief, Auctions and Spectrum Access Division, Wireless

Telecommunications Bureau, FCC, 445 12th Street, S.W., Room 6-C217, Washington, D.C. 20554.

FOR FURTHER INFORMATION CONTACT: For general questions about the challenge process and the USAC portal, email mf2challengeprocess@fcc.gov or contact Jonathan McCormack, Jonathan.McCormack@fcc.gov, (202) 418-0660. For questions about the one-time, 4G LTE data collection, contact Ken Lynch, Kenneth.Lynch@fcc.gov, (202) 418-7356, or Ben Freeman, Ben.Freeman@fcc.gov, (202) 418-0628. Additional challenge process information is

available at the Mobility Fund Phase II website (https://www.fcc.gov/mobility-fund-phase-2). **SUPPLEMENTARY INFORMATION:** This is a summary of the Public Notice (MF-II Challenge Process Procedures Public Notice), WC Docket No. 10-90, WT Docket No. 10-208, DA 18-186, adopted on February 27, 2018, and released on February 27, 2018. The MF-II Challenge Process Procedures Public Notice includes as attachments the following appendices: Appendix A, Generating Initial Eligible Areas Map; Appendix B, Validating Challenge Evidence; Appendix C, Applying Subsidy Data; Appendix D, File Specifications and File Formats; Appendix E, Relational Mapping of Form 477 Filers to Providers; and Appendix F, Challenge Data Certification Form. The complete text of the MF-II Challenge Process Procedures Public Notice, including all attachments, is available for public inspection and copying from 8:00 a.m. to 4:30 p.m. Eastern Time (ET) Monday through Thursday or from 8:00 a.m. to 11:30 a.m. ET on Fridays in the FCC Reference Information Center, 445 12th Street S.W., Room CY-A257, Washington, DC 20554. The complete text is also available on the Commission's website at https://apps.fcc.gov/edocs_public/attachmatch/DA-18-186A1.pdf. Alternative formats are available to persons with disabilities by sending an email to FCC504@fcc.gov or by calling the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

I. INTRODUCTION

- 1. In the *MF-II Challenge Process Procedures Public Notice*, the Rural Broadband Auctions Task Force (Task Force), with the Wireless Telecommunications Bureau and the Wireline Competition Bureau (the Bureaus), establishes the parameters and procedures to implement the Mobility Fund Phase II (MF-II) challenge process.
- 2. In the *MF-II Challenge Process Order*, 82 FR 42473, September 8, 2017, the Federal Communications Commission (Commission) directed the Bureaus to provide more details regarding the procedures for generating the initial map of presumptively eligible areas and the procedures for the challenge process. In the *MF-II Challenge Process Comment Public*

Notice, 82 FR 51180, November 3, 2017, the Task Force and Bureaus proposed and sought comment on the procedures for processing the coverage and subsidy data and creating the initial eligible areas map, the specific parameters for the data that challengers and respondents will submit as part of the challenge process, and a process for validating challenges. The Bureaus now resolve these issues and describe the filing requirements and procedures related to the challenge process.

II. PROCEDURES FOR GENERATING THE INITIAL ELIGIBLE AREAS MAP

- 3. The Bureaus adopt the proposed methodology for generating the initial map of areas presumptively eligible for MF-II support, i.e., those areas lacking unsubsidized qualifying coverage by any provider. In this multi-step approach, Commission staff first determines the unsubsidized coverage for each provider based on its submitted standardized coverage data of qualified 4G Long Term Evolution (LTE), and then aggregates these data across all providers; this aggregate area of unsubsidized coverage is then removed from the rest of the land area within each state to determine the presumptively eligible areas. This approach is consistent with the Commission's decision that areas lacking unsubsidized, qualifying 4G LTE service will be eligible for the auction, as well as its decision to create the map of areas presumptively eligible for MF-II support using a combination of the new 4G LTE coverage data and subsidy data from USAC. Specifically, the methodology the Bureaus adopt produces a map of unsubsidized qualified 4G LTE coverage for each provider by removing from that provider's submitted coverage any areas that the USAC subsidy data show are subsidized. The resulting maps of unsubsidized coverage are then merged across all providers to determine the areas ineligible for MF-II support. The initial eligible areas map shows all areas that are not ineligible for MF-II support.
- 4. To generate a map of unsubsidized qualified 4G LTE coverage for each provider, Commission staff: (1) removes any subsidized areas from the provider's coverage map; (2)

removes any water-only areas; (3) overlays a uniform grid with cells of one square kilometer (1 km by 1 km) on the provider's coverage map; and (4) removes grid cells with coverage of less than the minimum area that could be covered by a single speed test measurement when buffered. The term "water-only area" is defined as a water-only census block (that is, a census block for which the entire area is categorized by the U.S. Census Bureau as water).

- 5. Using the maps that result from steps 1-4 of this process, staff then generates the map of presumptively eligible areas for each state (or state equivalent) by: (5) merging the maps of unsubsidized coverage for all providers; (6) removing the merged unsubsidized coverage generated in step 5 (the ineligible areas) from the state's boundary to produce the eligible areas; and (7) removing any water-only areas from the eligible areas. Since the Bureaus waived the deadline for mobile wireless providers in Puerto Rico and the U.S. Virgin Islands to submit information regarding 4G LTE coverage, the map of presumptively eligible areas does not include Puerto Rico and the U.S. Virgin Islands.
- 6. The Bureaus define a uniform grid with cells of equal area (1 km by 1 km) across the continental United States, and separate uniform grids with cells of equal area (1 km by 1 km) for overseas territories and Hawaii. These grids are defined using an "equal area" map projection so that the same number of speed tests will be required to challenge the cell regardless of the location of the grid cell. The USAC portal system will use the uniform grid system to validate and process data submitted during the challenge process.
- 7. Commission staff is making available to the public the resulting map of presumptively eligible areas (overlaid with the uniform grid) for each state or state equivalent.

 The maps of unsubsidized coverage for specific providers will only be made available to a challenger through USAC's online challenge portal (the USAC portal) after the challenger agrees to keep such maps confidential.

III. PROCEDURES FOR MF-II CHALLENGES

- A. Procedures for Challengers: Filing a Challenge
 - Timing for Availability of Initial Coverage Data and Challenge
 Window
- 8. The Bureaus adopt the proposal to make public the map of areas presumptively eligible for MF-II support no earlier than four weeks after the deadline for submission of the new, one-time 4G LTE provider coverage data. The challenge process window will open no sooner than 30 days after the release of the map. Contemporaneously with the release of the MF-II Challenge Process Procedures Public Notice, the Bureaus released the MF-II Challenge Process Initial Eligible Areas Map Public Notice, DA 18-187, on February 27, 2018, announcing the publication of the initial eligible areas map and that the challenge window will open 30 days later, on March 29, 2018. Once the challenge window opens, an eligible party will be able to access the USAC portal and download the provider-specific confidential data necessary to begin conducting speed tests. If a consumer, organization, or business believes that its interests cannot be met through its state, local, or Tribal government entity and wishes to participate in the process as a challenger, the individual or entity may file a petition with the Commission requesting a waiver for good cause shown. The challenge window will close 150 days later, consistent with the procedures adopted in the MF-II Challenge Process Order. Although challengers will be able to submit speed test data until the close of the challenge window, the Commission determined that only those challenges to areas that are certified by a challenger at the close of the window will proceed. Since a challenger will not be able to certify a challenge until the submitted speed test data has been validated, the Bureaus strongly encourage challengers to submit data in advance of the closing date to allow ample time for validation processing. Each challenger is responsible for ensuring timely certification of its challenges.
- 9. The Bureaus are providing 30 days' notice of the opening of the USAC portal and commencement of the challenge window.

2. Using the USAC Challenge Process Portal

a. Accessing the Portal

- 10. Under the challenge process framework adopted by the Commission, a challenger must use the USAC portal to access the confidential provider-specific information that is pertinent to a challenge, as well as to submit its challenge, including all supporting evidence and required certifications. A challenger must log into the USAC portal using the account created pursuant to the procedures in the *MF-II Handset and USAC Portal Access Public Notice*, 83 FR 254, January 3, 2018, and the *MF-II Challenge Process Portal Access Request Form is Available Public Notice*, DA 18-142, February 14, 2018.
- 11. The Bureaus remind parties participating in the challenge process that it is each party's responsibility to ensure the security of its computer systems, user IDs, and passwords, and to ensure that only authorized persons access, download, or upload data into the challenge process portal on the party's behalf. The Commission assumes no responsibility or liability for these matters. To the extent a technical or security issue arises with the USAC portal, Commission staff will take all appropriate measures to resolve such issues quickly and equitably. Should an issue arise that is outside the USAC portal or attributable to a challenge process participant—including, but not limited to, a participant's hardware, software, or Internet access problem—and which prevents the participant from accessing provider-specific data or submitting a challenge prior to the close of the challenge window, the Commission shall have no obligation to resolve or remediate such an issue on behalf of the participant.

b. Access to Provider-Specific Data

12. The Bureaus adopt the proposal to make available in a downloadable format through the USAC portal the provider-specific data underlying the map of presumptively eligible areas. Among other geographic data, a challenger will be able to access the following data in shapefile format on a state-by-state basis: (a) the boundaries of the state (or state equivalent) overlaid with the uniform grid; (b) the confidential coverage maps submitted by providers for the

one-time 4G LTE data collection; and (c) the map of initial eligible areas. In addition, as proposed, challengers will be able to access, for each state, the confidential provider-specific data on the list of pre-approved handsets and the clutter information submitted for the one-time 4G LTE data collection. These data will be available for download in a tabular comma-separated value (CSV) format. A challenger will not have access to confidential provider-specific information unless and until it agrees to treat the data as confidential. Specifically, a challenger must agree to only use confidential provider-specific information for the purpose of submitting an MF-II challenge in the USAC portal before a challenger may download these data.

3. Evidentiary Requirements for Challenge Data

- a. General Requirements Adopted by the Commission for Speed Test Measurements
- 13. In the *MF-II Challenge Process Order*, the Commission decided that a challenger must submit detailed proof of lack of unsubsidized, qualified 4G LTE coverage in support of its challenge in the form of actual outdoor speed test data showing measured download throughput. A challenger must submit speed data from hardware- or software-based drive tests or application-based tests that overlap the challenged area. Each speed test must be conducted between the hours of 6:00 AM and 12:00 AM (midnight) local time, and the date of the test must be after the publication of the initial eligibility map but not more than six months before the scheduled close of the challenge window. Speed test data must be certified under penalty of perjury by a qualified engineer or government official.
- 14. When collecting speed data, a challenger must use at least one of the three handsets identified by each provider whose coverage is the subject of the specific challenge. A challenger must purchase an appropriate service plan from each unsubsidized service provider in the challenged area. The Commission explained in the *MF-II Challenge Process Order* that "[a]n appropriate service plan would allow for speed tests of full network performance, e.g., an unlimited high-speed data plan." A challenger should be cognizant of the limitations under the

service plan(s) it purchases and that respondents have the ability to respond to challenger speed tests with evidence of speed reductions. Depending on the size of the area being challenged and the terms of the plans offered by a challenged provider, a challenger may determine that it should purchase more than one service plan for the handset(s) it uses to test a provider's coverage in the challenged area. The Bureaus are not requiring a challenger to purchase multiple service plans from a challenged carrier; it is a challenger's decision what type of service plan and how many plans to purchase in order collect speed test data that support a challenge.

b. Substantial Coverage of the Challenged Area

- 15. The Commission decided in the *MF-II Challenge Process Order* that a challenger must submit actual outdoor speed test measurements with sufficient density to reflect actual consumer experience throughout the entire challenged area. Specifically, the Commission adopted a requirement that a challenger must take measurements that: (1) are no more than a fixed distance apart from one another in each challenged area; and (2) substantially cover the entire area.
- 16. The density of submitted speed points will be validated as part of a multi-step geospatial-data-processing approach. Consistent with the Commission's decision in the *MF-II Challenge Process Order*, the Bureaus will determine whether a challenger's speed test points substantially cover a challenged area (i.e., cover at least 75 percent of the challenged area) by buffering each speed test point that reports a downstream speed less than 5 Mbps, calculating the buffered area, and then comparing the area of the buffered points to the challengeable area within a 1 km by 1 km grid cell. The Commission determined in the *MF-II Challenge Process Order* that the radius of the buffer will equal "half of the maximum distance parameter." Under this validation process, if a challenger submits speed test measurements that are further apart than the maximum distance parameter in a challenged area, its evidence may be insufficient to cover at least 75 percent of the challengeable area within a cell, and its challenge would presumptively fail.

- 17. The Bureaus adopt the proposal to use kilometers instead of miles to be consistent with the de minimis challenge size adopted by the Commission, as well as to be consistent with the units used for the "equal area" map projection that we will use when processing geospatial data. Consistent with the Commission's direction to adopt a maximum distance value, the Bureaus adopt the proposal that speed test measurements must be no more than one-half of one kilometer apart from one another. As a result, the buffer radius will equal one-quarter of one kilometer. The Bureaus also adopt the proposal to require a challenger to submit data for at least one speed test within the challengeable area of a grid cell in order to challenge an area within the grid cell. The requirement that measurements be taken no more than one-half of one kilometer apart from one another serves as an upper bound (i.e., maximum distance apart), and a challenger will be free to and, in some circumstances, may be required to submit measurements taken more densely in order to sufficiently prove its challenge.
- 18. Under the challenge process framework that the Commission adopted, all ineligible areas may be challenged and challengers have the option to conduct speed tests that cover the areas they wish to challenge. Similarly, responding providers have the option to submit speed tests that demonstrate their coverage. These options will not be diminished or otherwise modified by the relative accessibility of an area.

c. Additional Parameters and Specifications for Speed Test Measurements

19. In addition to the general requirements for speed tests, the Commission directed the Bureaus to implement any additional parameters to ensure that speed tests accurately reflect the consumer experience in the challenged area. Consistent with this direction, the Bureaus adopt the proposal to require a challenger to submit all speed test measurements collected during the relevant time frame, including those that show speeds greater than or equal to 5 Mbps. While a challenger is able to delete speed tests from the USAC portal, this function should only be used to correct errors in submissions or add information to previous submissions. The Commission will

have the ability to review all submitted data, including deleted submissions and speed test data points that show speeds equal to or greater than 5 Mbps.

- 20. In addition, the Bureaus adopt the proposal to require a challenger to provide data that is commonly collected by speed test software and speed test apps. Specifically, a challenger must provide: signal strength and latency; the service provider's identity; the make and model of the device used (which must be from that provider's list of pre-approved handsets); the international mobile equipment identity (IMEI) of the tested device; the method of the test (i.e., hardware- or software-based drive test or non-drive test app-based test); and, if an app was used to conduct the measurement, the identity and version of the app. The Bureaus will not allow a challenger to submit speed test data of its own network.
- 21. The Bureaus also adopt a requirement that a challenger report information about the server used for speed and latency testing. Specifically, a challenger is required to submit the identity and location of the server used for speed and latency testing.
 - 22. The complete list of data required for a challenge may be found in Appendix D.

d. File Formats

- 23. The Bureaus adopt the proposal that a challenger must submit speed test data in CSV format matching the respective file specifications. A challenger is required to submit a CSV file that contains entries for each speed test run by the challenger to provide evidence in support of its challenge. A challenger can create this file using a template provided in the USAC portal.
- 24. The Bureaus require a challenger to report information about the server used for speed and latency testing. As a result, the Bureaus have modified the speed test data template proposed in the *MF-II Challenge Process Comment Public Notice* to include the identity and location of the server used for testing.
- 25. Additional details about the file formats required for challengers may be found in Appendix D.

4. Validation of Challenges

- 26. The Bureaus adopt and explain the detailed procedures for implementing system validation of evidence submitted by a challenger, as directed by the Commission in the MF-II Challenge Process Order. Consistent with the Bureaus' decision to use the uniform grid system to validate and process data submitted by a challenger, the USAC system will use a uniform grid of one square kilometer cells to perform geospatial analysis of a challenger's speed test data. The first step in the validation process requires the USAC system to determine whether a particular challenged area meets the de minimis threshold of one square kilometer. For each grid cell containing a speed test measurement submitted by a challenger, the challenged area will equal the challengeable portion of the grid cell (i.e., the ineligible area, or any area that is neither eligible nor water-only). The USAC system will superimpose each challenged area onto the initial eligibility map and remove any portions that overlap eligible areas. Since the USAC portal will use a uniform grid of one square kilometer cells to perform geospatial analysis, a challenge for a grid cell that is entirely challengeable will inherently meet the de minimis size threshold. In areas where the challengeable portion of the grid cell is less than this threshold, the Bureaus adopt the proposal to have the system validate that the sum of all areas challenged by a challenger in a state is greater than or equal to one square kilometer. If a challenge does not meet the de minimis area threshold, the challenge would fail step one of the validation process. If a challenge meets the de minimis area threshold, the USAC system will proceed to the second step of the validation process.
- 27. In the second step of the system validation process, the USAC system will analyze each speed test record to ensure it meets all standard parameters, other than the maximum distance and substantial coverage requirement. Consistent with the Bureau's proposal, a challenger must submit speed test data in a standard format on a state-by-state basis. If the challenge speed test data meet all standard parameters, the USAC system, as proposed, will determine the set of grid cells in which at least one counted speed test is contained (the challenged grid cells) and will proceed to the third step of the validation process.

- 28. In step three, the USAC system creates a buffer (i.e., draws a circle of fixed size) around each counted speed test (i.e., each speed test point that passes steps one and two) using a radius of one quarter of one kilometer, which is equal to half of the maximum distance allowed between tests. For each challenged grid cell, the system will then determine how much of the total buffered area overlaps with the coverage map of the challenged provider for whose network the speed test measurement was recorded; this overlapping portion is the measured area. Since a challenger has the burden of showing insufficient coverage by each provider of unsubsidized, qualified 4G LTE service, the system will also determine the unmeasured area for each such provider, that is, the portion of each provider's coverage in the grid cell falling outside of the buffered area.
- 29. In the last step of the validation process, the USAC system determines whether the buffered area of all counted speed tests covers at least 75 percent of the challengeable area in a grid cell. The system will merge the unmeasured area of all providers in a grid cell to determine the aggregated unmeasured area where the challenger has not submitted sufficient speed test evidence for every provider. If the calculated size of the aggregated unmeasured area in the grid cell is greater than 25 percent of the total challengeable area of the grid cell (i.e., the total area of the grid cell minus any water-only areas and any eligible areas), the challenge will be presumptively unsuccessful because it failed the requirement to include speed test measurements of sufficient density for all providers. The system will provide a warning to the challenger for any grid cells that fail this step. The system will consider all certified challenges in a particular grid cell across all challengers at the close of the challenge window.

5. Certifying a Challenge

a. Qualified Engineer/Government Official Certification

30. The Commission decided in the *MF-II Challenge Process Order* that all submitted speed tests must be substantiated by the certification of a qualified engineer or government official to be considered during the adjudication phase of the challenge process. The

Bureaus clarify that a qualified engineer may be an employee of the challenger or a third-party vendor, so long as the individual: (1) possesses a sufficient degree of technical knowledge and experience to validate the accuracy of submitted speed test data; and (2) has actual knowledge of the accuracy of the submitted data. For purposes of certification, a qualified engineer need not meet state professional licensing requirements, such as may be required for a licensed Professional Engineer, so long as the individual possesses the requisite technical knowledge, engineering training, and relevant experience to validate the accuracy of the submitted data. Using the Challenge Data Certification form in Attachment F, the qualified engineer or government official shall certify under penalty of perjury that: (a) he/she has examined the information prepared for submission; and (b) all data and statements contained therein were generated in accordance with the parameters specified by the Commission and are true, accurate, and complete to the best of his/her knowledge, information, and belief. The challenger must possess an executed Challenge Data Certification form in order to have all of the information it needs to certify a challenge. Persons making willful false statements in any part of a speed data submission may be subject to punishment by fine or imprisonment.

b. Challenger Certification

31. A challenger must certify its challenge(s) before the challenge window closes in order for the challenge to proceed. Through the USAC portal, a challenger will be able to electronically certify its counted speed test measurements on a grid cell by grid cell basis, since the system will consider each challenged grid cell as a separate challenge, or to certify some or all of its challenged grid cells on an aggregated basis. To certify a challenged grid cell, an authorized representative of the challenger must: (1) provide the name and title of the certifying engineer or government official who substantiated the speed test data; and (2) certify under penalty of perjury that: (a) the qualified engineer or government official has examined the information submitted; and (b) the qualified engineer or government official has certified that all data and statements contained in the submission were generated in accordance with the

parameters specified by the Commission and are true, accurate, and complete to the best of his or her knowledge, information, and belief. The Bureaus will not require a challenger to submit an executed Challenge Data Certification form when it certifies a challenge, though the Bureaus reserve the right to request a copy of the executed form. The Bureaus caution challengers that they will not be legally capable of making the required challenge certification in the USAC portal unless a qualified engineer or government official has substantiated the challenge speed test data by executing the Challenge Data Certification form.

- 32. The Bureaus adopt the proposal to allow a challenger to certify a presumptively unsuccessful challenge in a grid cell that fails validation solely because the challenger did not include speed test measurements of sufficient density for all providers. This will allow the system to consider all certified challenges in a particular grid cell across all challengers at the close of the challenge window, even if the individual challenges would fail the density requirement on their own.
- 33. During the challenge window, each challenger will be able to review its certified challenges on a grid cell by grid cell basis and may modify data submitted in support of a challenge after certifying (e.g., to correct or submit additional data). A challenger will be required to re-certify any challenges for which it submits additional or modified data; however, any new or modified data must also be substantiated by the certification of a qualified engineer or government official. At the close of the challenge window, only those challenges that are certified will proceed to adjudication; however, all data entered into the USAC portal may be considered in determining the weight of the evidence.
 - B. Procedures for Challenged Parties: Responding to a Challenge
 - 1. Timing for Availability of Challenge Data and Response Window
- 34. Following the close of the challenge window, the USAC portal system will process the data submitted by challengers. The type of processing that occurs after the challenge window closes is different from the automatic validation processing that takes place before the

window closes. Specifically, once the challenge window closes, the system will aggregate all certified challenges and recalculate density for each challenged grid cell to determine whether the combined challenges cover at least 75 percent of the challenged area. Only those challenges that are certified at the close of the challenge window will undergo this post-window processing; any challenges that have not completed automatic validation processing and/or have not been certified by the close of the challenge window will not proceed. The Bureaus will provide challenged parties 30 days to review challenges and supporting data in the USAC portal prior to opening the response window. The response window will open no sooner than 30 days after the USAC system finishes processing the data submitted by challengers.

35. Once opened, the response window will close 30 days later. Although a challenged party will have an opportunity to submit additional data via the USAC portal in response to a certified challenge for the entire duration of the response window, challenged parties are encouraged to file in advance of the deadline. A challenged party will not have an opportunity to submit additional data for the Commission's consideration after the response window closes.

2. Using the USAC Challenge Process Portal

a. Accessing the Portal

- 36. A challenged provider must use the USAC portal if it chooses to: (1) access and review the data submitted by the challenger with respect to a challenge within the provider's service area; and/or (2) submit additional data/information to oppose the challenge (i.e., demonstrate that the challenger's speed test data are invalid or do not accurately reflect network performance). A challenged provider must log into the USAC portal using the account created pursuant to the procedures in the *MF-II Handset and USAC Portal Public Notice*.
- 37. The Bureaus again remind parties participating in the challenge process that it is each party's responsibility to ensure the security of its computer systems, user IDs, and passwords, and to ensure that only authorized persons access, download, or upload data into the

challenge process portal on the party's behalf. The Commission assumes no responsibility or liability for these matters. To the extent a technical or security issue arises with the USAC portal, Commission staff will take all appropriate measures to resolve such issues quickly and equitably. Should an issue arise that is outside the USAC portal or attributable to a challenge process participant—including, but not limited to, a participant's hardware, software, or Internet access problem—and which prevents the participant from accessing challenge information or submitting response data prior to the close of the response window, the Commission shall have no obligation to resolve or remediate such an issue on behalf of the participant.

b. Challenge Information

as. Each challenged provider will be able to access and download through the USAC portal all speed test data associated with certified challenges on that provider's network. Specifically, after the USAC system finishes processing challenger data, a challenged party will be able to view and download the counted speed test data associated with a certified challenge that disputes the challenged party's coverage, i.e., counted speed tests conducted by a challenger on the challenged party's network. In addition, each challenged provider will be able to view and download speed test measurements that failed validation solely because the measurement was greater than or equal to 5 Mbps. USAC will not make available to a challenged party any speed tests that receive error codes other than for being above the 5 Mbps download speed threshold (e.g., tests that failed because they were not conducted during the required time period). The Bureaus note that, since the USAC system will not fully process the failed speed test data, these data will only be available in a downloadable format. Also, the Bureaus remind parties that challenger speed test data for speed tests above 5 Mbps are not certified to, as they did not make it all the way through the challenger validation process.

3. Evidentiary Requirements for Response Data

- a. General Requirements Adopted by the Commission
- 39. A challenged party is not required to respond to a challenge within its service

area. If a challenged provider chooses to respond to a challenge, the Commission will accept as response data certain technical information that is probative regarding the validity of a challenger's speed tests, including speed test data, information regarding speed reductions that affected specific challenger speed tests, and other device-specific data collected from transmitter monitoring software. If a challenged party submits its own speed test data, the data must conform to the same standards and requirements adopted for the challengers, except for the recency of the submitted data. Parties submitting technical data other than speed tests, including data from transmitter monitoring software, are required to include "geolocated, device-specific throughput measurements and other device-specific information (rather than generalized key performance indicator statistics for a cell-site)." Only data collected after the publication of the initial eligibility map and within six months of the scheduled close of the response window will be accepted from challenged parties. Response data must be reliable and credible to be useful during the adjudication process. Any evidence submitted by a challenged party in response to a challenge must be substantiated by the certification of a qualified engineer or official under penalty of perjury.

b. Additional Requirements for Speed Test Measurements

40. Consistent with the Commission's decision in the *MF-II Challenge Process*Order, if a challenged party chooses to submit its own speed test data, the data must conform to the same additional parameters adopted for challengers, except for the requirement to identify the service provider. A challenged party may only provide speed tests of its own network in response to a challenge. In addition to the parameters adopted by the Commission in the *MF-II Challenge Process Order*, a challenged party's speed data must include: signal strength and latency; the device used (which must be from that provider's list of pre-approved handsets); the IMEI of the tested device; the method of the test (i.e., hardware or software-based drive test or non-drive test app-based test); if an app was used to conduct the measurement, the identity and version of the app; and the identity and location of the server used for testing. As with challenger data, a

challenged party's speed test measurements may be no further than one-half kilometer apart from one another. While the system will not validate a challenged party's response data, response speed tests must record a download speed of at least 5 Mbps and meet all other standard parameters. A challenged party must submit all speed test measurements collected during the relevant time frame, including those that show speeds less than or equal to 5 Mbps. The complete file specification for respondent speed tests is detailed in Appendix D.

41. While data submitted by a challenged party will not be subject to the identical system validation process used for challenger speed test data, the system will process any submitted speed data using a similar approach. The USAC system will analyze each speed test record to ensure it meets all standard parameters and apply a buffer with a fixed radius to each counted speed measurement.

c. Additional Requirements for Speed Reduction Data

- 42. The Bureaus adopt the proposal to allow a challenged party to submit data identifying a particular device that a challenger used to conduct its speed tests as having been subjected to reduced speeds, along with the precise date and time the speed reductions were in effect on the challenger's device (speed reduction data). As the Commission explained in the *MF-II Challenge Process Order*, the Bureaus expect that speed test data will be particularly persuasive evidence to rebut a challenge. The Bureaus do not expect a challenged provider to submit challenger speed tests as part of its rebuttal because the challenged provider would need actual knowledge of the conditions under which the challenger speed tests were conducted to be able to certify to the accuracy of the challenger's speed tests.
- 43. The Bureaus acknowledge that a provider may reduce data speed for various reasons, and expect that evidence of user-specific speed reductions will be more probative and given more weight during adjudication than evidence of common network practices affecting all subscribers independent of the service plan used. Speed reduction data will be most probative of the validity of challenger speed tests when those data show that specific test results were caused

by the challenger's chosen rate plan or the challenger's data usage in the relevant billing period.

While the Bureaus will not require a challenger and challenged party to coordinate before speed test data are recorded, interested parties will not be prohibited from coordinating with one another regarding speed tests if they choose to do so.

d. Requirements for Data from Transmitter Monitoring Software

- 44. Under the MF-II challenge process framework adopted by the Commission, a challenged party may submit device-specific data collected from transmitter monitoring software in responding to a challenge. As stated in the *MF-II Challenge Process Order*, these data "should include geolocated, device-specific throughput measurements or other device-specific information (rather than generalized key performance indicator statistics for a cell-site) in order to help refute a challenge." The Bureaus adopt the proposal to allow challenged parties to submit transmitter monitoring software data that is substantially similar in form and content to speed test data in order to facilitate comparison of such data during the adjudication process. In particular, challenged parties wishing to submit such data must include: the latitude and longitude to at least five decimals of the measured device; the date and time of the measurement; and signal strength, latency, and recorded speeds. The Bureaus will not require challenged parties submitting data from transmitter monitoring software to provide the measured distance between the device and transmitter.
- 45. The Bureaus adopt the proposal to require that measurements from submitted transmitter monitoring software data conform to the standard parameters and requirements adopted by the Commission for speed test data submitted by a challenged party. The Bureaus will require that such measurements reflect device usage between the hours of 6:00 AM and 12:00 AM (midnight) local time and be collected after the publication of the initial eligibility map and within six months of the scheduled close of the response window. The Bureaus will not require challenged parties to submit all transmitter monitoring software data collected over the

relevant time period due to the potential massive volume of data that could be collected over six months. The complete file specifications for respondent transmitter monitoring software data is detailed in Appendix D. The Bureaus caution that triangulated data with large inaccuracies may not be precise enough to constitute device-specific geolocated measurements because an engineer would not be able to certify to the accuracy of a particular speed test occurring at a particular location.

e. File Formats

- 46. The Bureaus adopt the proposal that challenged parties submit speed test data in CSV format matching the respective file specifications. Challenged parties are required to submit a CSV file that contains entries for each speed test run by the challenged party to provide evidence in support of its response. A challenged party can create this file using a template provided in the USAC portal. The Bureaus will also require that data from transmitter monitoring software be submitted using this same template. A challenged party may leave the device IMEI and device ID fields blank when submitting data from transmitter monitoring software.
- 47. The Bureaus also adopt the proposal to require challenged parties that file speed reduction data to file the data in CSV format matching the respective file specifications. This file can be created using a template provided in the USAC portal. The Bureaus will permit challenged parties to leave the device download speed data field blank if that provider's plan does not reduce speeds to a fixed value. In order to be useful when evaluating challenges, the Bureaus conclude that the data captured in the speed reduction data template must reflect when a particular device was known to have actually experienced reduced speeds.
- 48. The Bureaus expect that speed reduction data would need to show that a specific speed test result was affected by a speed reduction—not merely that the challenger was eligible for (i.e., potentially subject to) reduced speeds sometimes under the terms of its service plan (because of the amount of recent data usage or not). Accordingly, the Bureaus expect that, for speed data submitted by challengers that chose appropriate rate plans (those that allowed for

testing of full network performance), a challenged party's data showing that a specific speed reduction occurred over a very limited time period, such as a few minutes, would be more probative of the validity of challenger speed tests taken during that time than data alleging that a speed reduction occurred over several hours or several days. If, however, the challenger chose an inappropriate rate plan or the challenger's data usage triggered a constant and extended speed reduction, for example by the challenger going over a high-speed data allotment in a billing period, the Bureaus expect that a challenged party's speed reduction data would be useful if it showed the entire period that challenger speed tests were taken under such conditions.

- 49. The Bureaus' decision to require that response speed test data, transmitter monitoring software data, and speed reduction data be submitted in a certain format is consistent with the Commission's direction that the Bureaus implement "any additional requirements that may be necessary or appropriate for data submitted by a challenged party in response to a challenge." To the extent response data requires further explanation that does not fit into the templates, a challenged party may additionally provide a descriptive narrative in a text box accessible via the USAC portal; however, speed test data, transmitter monitoring data, or speed reduction data submitted by challenged parties must otherwise conform to the required templates in order to be considered.
- 50. Additional details about the attributes and the file formats that we will require for respondents may be found in Appendix D.

4. Certifying a Response

a. Qualified Engineer Certification

51. The Commission decided in the *MF-II Challenge Process Order* that all response evidence must be certified by a qualified engineer to be considered during the adjudication phase of the challenge process. The Bureaus again clarify that a qualified engineer may be an employee of the challenged party or a third-party vendor so long as the individual: (1) possesses a sufficient degree of technical knowledge and experience to validate the accuracy of submitted

data; and (2) has actual knowledge of the accuracy of the submitted data. For purposes of certification, a qualified engineer need not meet state professional licensing requirements, such as may be required for a licensed Professional Engineer, so long as the individual possesses the requisite technical knowledge, engineering training, and relevant experience to validate the accuracy of the submitted data. Using the Challenge Data Certification form in Attachment F, the qualified engineer shall certify under penalty of perjury that: (a) he/she has examined the information prepared for submission; and (b) all data and statements contained therein were generated in accordance with the parameters specified by the Commission and are true, accurate, and complete to the best of his/her knowledge, information, and belief. The Bureaus will not require a challenged party to submit an executed Challenge Data Certification form when it certifies a response, though the Bureaus reserve the right to request a copy of the form. The Bureaus caution challenged parties that they will not be legally capable of making the required response certification unless a qualified engineer has substantiated the response data by executing the Challenge Data Certification form. The challenged party must possess an executed Challenge Data Certification form in order to have all of the information it needs to certify a response. Persons making willful false statements in any part of a speed data submission may be subject to punishment by fine or imprisonment.

b. Challenged Party Certification

52. Only those responses that have been certified by the close of the response window will be considered during the adjudication phase. A challenged party will be able to electronically certify its submitted response data for each challenged grid cell via the USAC portal. To certify a response, an authorized representative of the challenged party must: (1) provide the name and title of the certifying engineer that substantiated the data; and (2) certify under penalty of perjury that: (a) the qualified engineer has examined the information submitted; and (b) the qualified engineer has certified that all data and statements contained in the

submission were generated in accordance with the parameters specified by the Commission and are true, accurate, and complete to the best of his or her knowledge, information, and belief.

53. During the response window, a challenged party will also be able to review, modify, and delete any certified response data it no longer wishes to submit, and will be required to re-certify any responses for which it submits additional or modified data or deletes data; however, any new or modified data must also be certified by a qualified engineer. A challenged party will not have an opportunity to amend submitted data, submit additional data, or certify any response after the response window has closed.

C. Adjudication of Challenges

1. Standard of Review

54. As the Commission determined in the *MF-II Challenge Process Order*, the Bureaus will adjudicate the merits of certified challenges based upon a preponderance of the evidence standard of review, and the challenger will bear the burden of persuasion.

2. Announcing Results

55. The Bureaus adopt the proposal to make available to challengers and respondents data about their challenges and responses through the USAC portal after Commission staff have adjudicated all challenges and responses. In particular, the Bureaus will provide to each challenger or respondent for each of the grid cells associated with their certified challenges or certified responses, respectively: (a) the outcome of the adjudication; (b) the evidence submitted and certified by all challengers; and (c) the evidence submitted and certified by all respondents. Additionally, the Bureaus will make public on the Commission's website, concurrent with the publication of the final eligibility map, the outcome of the adjudication for each challenged cell and the non-confidential components of the data submitted by challengers and respondents.

IV. PROCEDURAL MATTERS

A. Congressional Review Act

56. The Commission will send a copy of this Public Notice to Congress and the Government Accountability Office, pursuant to the Congressional Review Act.

B. Paperwork Reduction Act Analysis

57. The MF-II Challenge Process Procedures Public Notice implements the information collection requirements adopted in the MF-II Challenge Process Order, 82 FR 42473, September 8, 2017, and does not contain any additional information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. The Commission received PRA approval from the Office of Management and Budget (OMB) for the information collection requirements related to the challenge process, as adopted in the MF-II Challenge Process Order. See 83 FR 6562 (Feb. 14, 2018). Because this Public Notice does not adopt any additional information collection requirements beyond those adopted in the MF-II Challenge Process Order and approved by OMB, the MF-II Challenge Process Procedures

Public Notice does not implicate the procedural requirements of the PRA or the Small Business Paperwork Relief Act of 2002, Public Law 107-198.

C. Supplemental Final Regulatory Flexibility Analysis

58. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission prepared Initial Regulatory Flexibility Analyses (IRFAs) in connection with the USF/ICC Transformation FNPRM (76 FR 78383, December 16, 2011), the 2014 CAF FNPRM (80 FR 4445, January 27, 2015), and the MF-II FNPRM (82 FR 13413, March 13, 2017) (collectively, MF-II FNPRMs). A Supplemental Initial Regulatory Flexibility Analysis (Supplemental IRFA) was also filed in the MF-II Challenge Process Comment Public Notice in this proceeding. The Commission sought written public comment on the proposals in the MF-II FNPRMs and in the MF-II Challenge Process Comment Public Notice, including comments on the IRFAs and Supplemental IRFA. The Commission received three comments in response to the MF-II FNPRM IRFA. No comments were filed addressing the other IRFAs or the Supplemental IRFA. The Commission included Final Regulatory Flexibility Analyses (FRFAs) in connection with the 2014 CAF Order, the MF-II Order, and the MF-II Challenge Process Order (collectively, the MF-II Orders). This Supplemental Final Regulatory Flexibility Analysis (Supplemental FRFA) supplements the FRFAs in the MF-II Orders to reflect the actions taken in the MF-II Challenge Process Procedures Public Notice and conforms to the RFA.

1. Need for, and Objectives of, this *Public Notice*

59. The *MF-II Challenge Process Procedures Public Notice* establishes the parameters and procedures to implement the MF-II challenge process. Following the release of the *MF-II Orders*, the Commission released the *MF-II Challenge Process Comment Public Notice*. The *MF-II Challenge Process Comment Public Notice* proposed and sought comment on specific parameters and procedures to implement the MF-II challenge process.

- 60. More specifically, the *MF-II Challenge Process Procedures Public Notice* establishes the technical procedures for generating the initial eligible areas map and processing challenges or responses submitted by challengers and challenged parties, respectively. The *MF-II Challenge Process Procedures Public Notice* also establishes additional requirements and parameters, including file formats and specifications, for data submitted during the challenge process.
- 61. Finally, the challenge procedures established in the *MF-II Challenge Process*Procedures Public Notice are designed to anticipate the challenges faced by small entities (e.g., governmental entities or small mobile service providers) in complying with the implementation of the Commission's rules and the Bureau's proposals. For example, the Commission will perform all geospatial data analysis on a uniform grid, which will remove the need for a challenger to submit a map of the area(s) it wishes to challenge on top of its evidence, reducing burdens on small entities. Additionally, the *MF-II Challenge Process Procedures Public Notice* adopts procedures to allow a challenged entity to submit evidence identifying devices that were subject to data speed regulations, alongside evidence from transmitter monitoring software and speed tests, which would allow for a small entity to more easily respond to a challenge. Challenged parties will also be given 30 days to review challenges and supporting data before the response window opens, further reducing the burden on small entities of responding to a challenge.
 - 2. Summary of Significant Issues Raised by Public Comments in Response to the IRFA
- 62. There were no comments filed that specifically addressed the proposed procedures and policies presented in the Supplemental IRFA.

- 3. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration
- 63. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rule(s) as a result of those comments.
- 64. The Chief Counsel did not file any comments in response to the proposed procedures in this proceeding.
 - 4. Description and Estimate of the Number of Small Business Entities to Which Procedures Will Apply
- estimate of the number of small entities that may be affected by the proposed rules adopted herein. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.
- 66. FRFAs were incorporated into the *MF-II Orders*. In those analyses, the Commission described in detail the small entities that might be significantly affected. In the *MF-II Challenge Process Procedures Public Notice*, the Bureaus incorporate by reference the descriptions and estimates of the number of small entities from the previous FRFAs in the *MF-II Orders*.

- Description of Projected Reporting, Recordkeeping, and Other
 Compliance Requirements for Small Entities
- 67. The data, information, and document collection required by the *MF-II Orders*, as described in the previous FRFAs and the SIRFA in the *MF-II Challenge Process Comment Public Notice* in this proceeding, are hereby incorporated by reference. The *MF-II Challenge Process Procedures Public Notice* describes certain additional parameters for the data submitted by challengers and challenged parties during the challenge process. Specifically, the Bureaus require a challenger to submit all speed test measurements collected during the relevant time frame, including those that show speeds greater than or equal to 5 Mbps. Each submitted speed test measurement must include: signal strength and latency; the service provider's identity; the make and model of the device used (which must be from that provider's list of pre-approved handsets); the international mobile equipment identity (IMEI) of the tested device; the method of the test (i.e., hardware- or software-based drive test or non-drive test app-based test); if an app was used to conduct the measurement, the identity and version of the app; and the identity and location of the server used for speed and latency testing.
- 68. If a challenged party chooses to submit its own speed test data in response to a challenge, the data must conform to the additional parameters that are required for challengers, except for the requirement to identify the service provider. A challenged party may also submit data identifying a particular device that a challenger used to conduct its speed tests as having been subjected to reduced speeds, along with the precise date and time the speed reductions were in effect on the challenger's device. If a challenged party chooses to submit data collected from transmitter monitoring software, the data should include geolocated, device-specific throughput measurements or other device-specific information (rather than generalized key performance indicator statistics for a cell-site). Measurements from submitted transmitter monitoring software data must conform to the standard parameters and requirements for speed test data submitted by a

challenged party, and must include: the latitude and longitude to at least five decimals of the measured device; the date and time of the measurement; and signal strength, latency, and recorded speeds. The Bureaus also clarify that such geolocated data be accurate to within 7.8 meters of the actual device location 95 percent of the time.

- Steps Taken to Minimize the Significant Economic Impact on Small
 Entities, and Significant Alternatives Considered
- 69. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) and exemption from coverage of the rule, or any part thereof, for small entities."
- Procedures Public Notice are intended to remove the need for a challenger to submit a map of the area(s) it wishes to challenge on top of its evidence by having the Commission perform all geospatial data analysis on a uniform grid, which will benefit small entities. The challenge procedures also allow a challenged entity to submit evidence identifying devices that were subject to data speed reductions, alongside evidence from transmitter monitoring software and speed tests, thereby minimizing the significant economic impact on small entities. Challenged parties will also be given 30 days to review challenges and supporting data before the response window opens. In addition, the Bureaus note that the challenge processes and procedures adopted in the MF-II Challenge Process Procedures Public Notice will only apply to small entities who participate in the challenge process. The Bureaus also note that to the extent a challenged party is a small entity, since a challenged party is not required to respond to challenges within their

service area(s) the processes and procedures associated with responding to challenges adopted in

the MF-II Challenge Process Procedures Public Notice are only applicable should a small entity

choose to submit responsive evidence.

7. **Report to Congress**

71. The Commission will send a copy of the MF-II Challenge Process Procedures

Public Notice, including this Supplemental FRFA, in a report to Congress pursuant to the

Congressional Review Act. In addition, the Commission will send a copy of the MF-II

Challenge Process Procedures Public Notice, including this Supplemental FRFA, to the Chief

Counsel for Advocacy of the SBA. A copy of the MF-II Challenge Process Procedures Public

Notice and Supplemental FRFA (or summaries thereof) will also be published in the Federal

Register.

Federal Communications Commission.

Gary D. Michaels,

Deputy Chief, Auctions and Spectrum Access Division, WTB.

[FR Doc. 2018-06382 Filed: 3/28/2018 8:45 am; Publication Date: 3/29/2018]

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